TECHNICAL-TACTICAL OPTIMIZATION IN YOUNG BASKETBALL PLAYERS

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12th Conference of Baltic Society of Sport Sciences „Sport Science for Sports Practice, Teacher Training and Health Promotion”
April 25 - 26, 2019, Vilnius, Lithuania
Challenge:

Teaching the fundamentals of the game to young players so that they have a quality athletic experience affecting their integral development.
Intra-Inter Systemic Optimization

- Player as a hyper-complex system
- Interactions among structures
- Preferential simulator situations
- Intra-systemic optimization
- Inter-systemic optimization
**TECHNICAL-TACTICAL OPTIMIZATION**

**MAIN PRIORITIES · TEAM SPORTS**

Complex dynamic systems conception of technical-tactical optimization based on Seirulio, since 1987

DRN, 2015, copying and interpreting Professor Seirulio Vargas since 1985
Personalization

A detailed-rich identification in each player of:

- TALENTS (performance-confidence)
- NEEDS (expand talent)
In order to achieve a rich technical-tactical optimization in young basketball players, the following training criteria are selected:
(a) Create **training situations** combining a wide variety of offensive and defensive tactical intentions of 1-2-3-4-5 player plays in multiple game organizations and continually emphasizing the basketball basics.
we focus our analysis on observing the conditions of advantage and define it as "the different game actions (technical - tactical - conditional - socio-affective - emotive-volitive - creative), which apply individually or collectively to create the possibility of making a shot with effectiveness ", in this way two premises or initial conditions are established:

- Interpret the shooting action globally. In it, the technical, tactical, conditional and mental preparation capacities interact; ..... 

- It is considered the creation of the advantage situation to pull as the most relevant factor, with the possibility of participation of one or more players.
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(b) Prioritize **technical optimization** with the basis of precision, variability and types of speed (start, execution, intervention, rhythm change, intermittent), and the coordination capacities focused on motor control (kinesthetic discrimination, segmentary differentiation, variability, combination, guided control, fluidity-relaxation and amplitude), spatial implementation (orientation, directionality, localization, situation, static-dynamic balance) and temporal adequacy (reaction-anticipation, rhythmical differentiation, rhythmical variability, rhythmical adaptation, rhythmical sense).
Technical Optimization
Main Priorities - Team Sports

Complex dynamic systems conception of technical optimization based on Seirul-lo, since 1987

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Schnabel (1965-76)
3 general coordinative capacities:
- motor control,
- adaptation of the movement,
- motor learning
5 special coordinative capacities:
- fine dexterity
- balance capacity,
- elasticity of movement,
- ability of motor combination
- movement fantasy
Joint mobility or amplitude as coordination-conditional capacity.

Blume (1978-81)
3 general coordinative capacities:
- motor control,
- adaptation of the movement,
- motor learning
7 coordinative capacities:
- differentiation
- coupling,
- reaction,
- orientation,
- preservation of balance,
- change
- rhythm

Hirtz (1977-81)
5 fundamental coordinative capacities:
- Spatial Orientation,
- kinesthetic differentiation,
- reaction,
- rhythm
- Balance.
2 power-conditional boundary capabilities:
- coordinative speed
- coordinative resistance
3 superior coordinative capacities:
- motor control,
- motor adaptation,
- motor learning
COORDINATION CAPACITIES
Francisco Seirul·lo Vargas (1985)

<table>
<thead>
<tr>
<th>MOVEMENT CONTROL</th>
<th>SPATIAL IMPLEMENTATION</th>
<th>TEMPORAL ADEQUACY</th>
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<td>Kinästhetik Discrimination</td>
<td>Orientation</td>
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<td>Segmentary Differentiation</td>
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<td>Variability of Movement</td>
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<td>Combination of Movements</td>
<td>Situation (placement)</td>
<td>Rhythmical or Temporal Adaptation</td>
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<td>Fluidity and Relaxation of Movement</td>
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<td>Amplitude of Movement</td>
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This structure of coordination capacities proposed by professor Seirul·lo is based on the person, thus it is applicable to movement education, sport initiation and high performance.
COORDINATIVE OPTIMIZATION

Types of speed:
- Start
- Execution
- Intervention
- Rhythm change
- Intermittent

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Example of Motion Offense

THE GREEK YOUTH PROGRAM: OFFENSIVE PHILOSOPHY

08 2004 FIBA ASSIST MAGAZINE

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(c) Prioritize **tactical optimization** focused on cognitive factors (spatial perception – distances, paths, orientations, organizations / temporal perception – duration, global and segmentary speeds, differentiation of players-ball speeds, anticipation-reaction / decision making / understanding-reasoning / designing programs / self-control-evaluation) and socio-affective factors (mainly non-verbal – gesture, look, spatial, temporal - assertive and empathic communications in mutual help and cooperation situations).
TACTICAL OPTIMIZATION
MAIN PRIORITIES • TEAM SPORTS

Complex dynamic systems conception of Tactical optimization based on Seirul-lo, since 1987
DRN, 2015, copying and interpreting Professor Seirul-lo Vargas since 1985
COGNITIVE-SOCIO-AFFECTIVE OPTIMIZATION

COGNITIVE-SOCIO-AFFECTIVE STRUCTURES

INTRA-SYSTEMIC OPTIMIZATION

COGNITIVE
- Perception of motor ability
- Spatial perception
- Distances
- Paths
- Orientations
- Organizations
- Temporal perception
- Duration
- Global/segmentary speeds
- Players-ball speeds
- Reaction-anticipation
- Memory (short/middle/long term)
- Decision making
- Understanding
- Reasoning
- Designing movement and E-T programs
- Self-control/evaluation
- Concentration (emotive-volitive)

SOCIO-AFFECTIVE
- Mutual help (more unpredictable)
- Cooperation (more predictable)
- Assertive communication
- Empathic communication
- Verbal
- Non-verbal
  - Look
  - Gestures
  - Proxemic-spatial
  - Chronemic-tempo
  - Tactile-kinesthetic
  - Paralinguistica

PERSON

* CONDITIONING STRUCTURE
* COORDINATIVE STRUCTURE
* EMOTIONAL-VOLITIONAL STRUCTURE
* CREATIVE-EXPRESSIVE STRUCTURE
* MENTAL STRUCTURE
* BIOENERGETIC STRUCTURE

INTER-SYSTEMIC OPTIMIZATION

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(d) Interact technical and tactical optimizations.
TECHNICAL-TACTICAL OPTIMIZATION
MAIN PRIORITIES • TEAM SPORTS

Complex dynamic systems conception of technical-tactical optimization by Seirul-Io, since 1987

DRN, 2015, copying and interpreting Professor Seirul-Io Vargas since 1985
(e) Enriching technical-tactical optimizations with a great variety of **conditioning** (levels of specificity of strength and endurance), **emotional-volitional** (main emphasis on being in love with the game) and **creativity** prioritized situations.
Conditioning

Alternating
Emotional-Volitive

Extraordinarily important to live many varied competitive experiences, especially in games, ... also in training.

Examples:
- Play the last min. sec. in a tight game.
- Overcome or maintain an advantage.
- Repeat actions with success in critical moments.
- Plays with limit of time.
- Make the shot from a concrete distance-zone / defended by x player / with a x play / with a type of shot / getting fault / ball of the game
- Fights with players taller-shorter / quicker / stronger / with more endurance / more intelligent / more coordinated / more creative / very unpredictable / highly socio-affective / with more emotional control / ...
- Under different types of fatigue.
- .....
Creativity

Challenge the players to find new options of personal optimization.

Coach open to new possibilities.

Šarūnas Jasikevičius
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The project is divided into three stages:

A. Introduction to practice
B. Obtaining high performance
C. Decreasing functionality

Each of the 3 major stages happens over the course of 10-12 year periods, and is further subdivided in phases:

A1. Non-specific Movement Practice Phase (ages 5-7)
A2. Generic Polyvalent Development Phase (ages 8-10)
A3. Multilateral Oriented Preparation Phase (ages 11-13)
A4. Specific Initiation Phase (ages 14-16)

B1. Specialization Phase (ages 17-19)
B2. Perfecting Phase (ages 20-23)
B3. Stability and High Performance Phase (ages 24-28)

C1. Maintaining High Performance Phase (ages 29-34)
C2. Compensatory Adaptation to Reduced Performance Phase (ages 33-38)
C3. Functional rehabilitation for non-competitive performance (ages 38-41)

It is imperative that every athlete is oriented over the course of an athletic life for a project that prevents very common mistakes when competition is rushed and the temporality of the main criteria – the optimization of the individual – is not respected.

Fundamental Movement Skills and their Application to Sports Initiation
http://entrenamientodeportivo.org/articulos/Fundamental_Motor_Skills_and_Their_Application_to_Sports_Initiation_seirul_lo.pdf

YOUNG BASKETBALL PLAYERS
approx. from 9-10 to 18 years old
Challenge

About 9 years of training and competition to enrich the optimization of:

1. All relevant tactical situations.
   
   Young teams in a club playing the same tactical concepts as senior players vs. young teams playing year by year a wide variety of tactical concepts to be prepared to compete in any competition.

2. All relevant technical abilities.
   
   Young players developing technical abilities to solve selected tactical situations vs. young players optimizing a wide variety of technical abilities to solve with different options any tactical situation.
Final Remarks

If young basketball players train and compete in conditions that allow a rich technical-tactical optimization they will be able to play intelligent, unpredictable, instinctively, unselfish, creatively and concentrated on loving the game; thus, when they are senior players they will easily perfect any game situation required by their coach.
The practical methodologies of personalized optimization provide insight into:

- (1) the identification of talents and needs of a player in a structural criterion,
- (2) the optimization of all aspects of each structure of the player in depth and in detail,
- (3) the creation of training methodologies that includes the complexity of the player, by intra-systemic and inter-systemic optimizations, and
- (4) the design of self-control and self-evaluation methods for a personalized proposal of an optimal training process.

... Also useful for elite players.
Thank you for your attention!!

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